



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,217	10/26/2001	Michael S. Foster	030048037US	5326
25096	7590	10/04/2005	EXAMINER	
PERKINS COIE LLP			CHO, HONG SOL	
PATENT-SEA				
P.O. BOX 1247			ART UNIT	PAPER NUMBER
SEATTLE, WA 98111-1247			2662	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/066,217	Applicant(s) FOSTER ET AL.	
	Examiner Hong Cho	Art Unit 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/26/01
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/12/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. Claims 1, 2, 6, 7, 9-14, 17, 20-25, 29, 32-39, 42, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin (U.S 5872783) in view of Chow et al (U.S 6169742), hereinafter referred to as Chow.

Re claims 1, 2, and 7, Chin discloses a switch having ports connected to a crosspoint switch of the switch, the crosspoint switch having inputs and outputs connected to the ports (figure 2). Chin fails to disclose the crosspoint switch having at least one output that is not connected to a port. Chow discloses a switch having a management port for direct communication with an external management agent (abstract, figure 2, element 36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a switch fabric of Chin to implement management port of Chow to share control of overall switch operations as suggested by Chow (column 2, lines 18-27). Chin discloses input ports with inbound tables (*providing*

a reserved address, column 5, lines 13-18) and receiving packets with destination addresses at input ports (*receiving data having an address through a source port*, figure 2, elements 300 and 204). Chin fails to disclose directing the crosspoint switch to connect the source port to the output that is not connected to a port so that data addressed to the reserved address is routed to the output not connected to a port when the address of the received data matches the provided reserved address. Chow discloses providing decision making logic for determining the destination Media Access Controller (MAC) port of a management port for a given data packet with destination address (column 6, lines 45-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to direct a switch to send a data packet from a source port to a management port after determining the destination address of the received data to share control of overall switch operations as suggested by Chow (column 2, lines 18-27).

Re claim 6, Chin discloses a CPU-destined packets (*the reserved address identified that the received data is administrative data*, column 3, lines 38-40).

Re claims 9 and 10, Chin discloses a frame with virtual address (column 4, lines 55-64).

Re claims 11-13, and 17, Chin discloses a network switch (*routing device*) having a plurality of ports that receive communications at a source port (figure 2, element 204) and a switch having switch ports connected to the ports (figure 2, element 210) of the switch. Chin fails to disclose a switch having at least one switch port that is not connected to a port. Chow discloses a switch having a management port for direct

communication with an external management agent (abstract, figure 2, element 36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a switch fabric of Chin to implement management port of Chow to share control of overall switch operations as suggested by Chow (column 2, lines 18-27). Chin fails to disclose a component that directs connecting of the source port to the switch port that is not connected to a port based on an indication that a communications is administrative and a component that transmits the communication from the source port to the switch port that is not connected to a port switch having at least one output that is not connected to a port. Chow discloses providing decision making logic for determining the destination Media Access Controller (MAC) port of a management port for a given data packet with destination address (column 6, lines 45-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to direct a switch to send a data packet from a source port to a management port after determining the destination address of the received data to share control of overall switch operations as suggested by Chow (column 2, lines 18-27).

Re claim 14, Chin discloses a CPU-destined packets (*the reserved address identified that the received data is administrative data*, column 3, lines 38-40).

Re claims 20 and 21, Chin discloses a frame with virtual address (column 4, lines 55-64).

Re claims 22, 25, and 29, Chin discloses a network switch (*routing device*) having routing device ports connected to a crosspoint switch of the switch, the crosspoint switch having switch ports connected to the routing device ports (figure 2, element 210) of the

switch. Chin discloses a network switch with a plurality of ports that receive communications through a source routing device port (figure 2, element 204). Chin fails to disclose a component that directs connecting of the source port to the switch port when the received communication indicates that it is administrative, directing the crosspoint switch to connect the source routing device port to a switch port connected to a device for processing administrative communications. Chow discloses providing decision making logic for determining the destination Media Access Controller (MAC) port of a management port for a given data packet with destination address (column 6, lines 45-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to direct a switch to send a data packet from a source port to a management port after determining the destination address of the received data to share control of overall switch operations as suggested by Chow (column 2, lines 18-27).

Re claims 23 and 24, Chin discloses all of the limitations of the base claim, but fails to teach the switch port that is connected to the device for processing administrative communications is not connected to a routing device port. Chow discloses a switch having a management port for direct communication with an external management agent (abstract, figure 2, element 36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a switch fabric of Chin to implement management port of Chow to share control of overall switch operations as suggested by Chow (column 2, lines 18-27).

Re claims 32 and 33, Chin discloses a frame with virtual address (column 4, lines 55-64).

Re claims 34-38, and 42, Chin discloses a routing device having a plurality of routing device ports, a switch having inputs and outputs connected to the switch ports (*connecting a switch port to another switch port, each routing device port being connected to switch port*, figure 2). Chin fails to disclose the crosspoint switch having at least one output that is connected to the administrative port. Chow discloses a switch having a management port (*administrative port*) for direct communication with an external management agent (*administrative device hosts a network manager for controlling a network of routing devices*, abstract, figure 2, element 36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a switch fabric of Chin to implement management port of Chow to share control of overall switch operations as suggested by Chow (column 2, lines 18-27).

Chin fails to disclose connecting a switch port connected to a source routing device port that has received an administrative communication and means for transmits the administrative communication from the source routing device port to the switch port that is connected to the administrative port. Chow discloses providing decision making logic for determining the destination Media Access Controller (MAC) port of a management port for a given data packet with destination address (column 6, lines 45-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to direct a switch to send a data packet from a source port to a

management port after determining the destination address of the received data to share control of overall switch operations as suggested by Chow (column 2, lines 18-27).

Re claims 39 and 46, Chin discloses a CPU-destined packets (*the reserved address identified that the received data is administrative data*, column 3, lines 38-40).

Re claim 45, Chin discloses a frame with virtual address (column 4, lines 55-64).

Claims 3-5, 8, 15, 16, 18, 19, 26-28, 30, 31, 40, 41, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chin in view of Chow and further in view of Heil (US 6944152).

Re claims 3-5, and 8, Chin discloses all of the limitations of the base claim, but fails to teach that the reserved address identifies that the received data is related to a Fibre Channel and an InfiniBand upper layer protocol. Heil discloses attaching Fibre Channel or an InfiniBand from a switch to a port of a fabric (column 2, lines 23-29). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to have Fibre Channel or an InfiniBand installed to a port of a fabric for the benefit of high data transfer speed and bandwidth advantages as suggested by Heil (abstract).

Re claims 15, 16, 18, and 19, Chin discloses all of the limitations of the base claim, but fails to teach that the switch port that is not connected to a port is connected to a device that provides a Fibre Channel and an InfiniBand upper layer protocol. Heil discloses attaching Fibre Channel or an InfiniBand from a switch to a port of a fabric (column 2, lines 23-29). It would have been obvious to one having ordinary skill in the

art at the time the invention was made to modify Chin to have Fibre Channel or an InfiniBand installed to a port of a fabric for the benefit of high data transfer speed and bandwidth advantages as suggested by Heil (abstract).

Re claims 26-28, 30, and 31, Chin discloses all of the limitations of the base claim, but fails to teach that the communication indicates that it is to be process by a Fibre Channel and an InfiniBand upper layer protocol. Heil discloses attaching Fibre Channel or an InfiniBand from a switch to a port of a fabric (column 2, lines 23-29). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to have Fibre Channel or an InfiniBand installed to a port of a fabric for the benefit of high data transfer speed and bandwidth advantages as suggested by Heil (abstract).

Re claims 40, 41, 43, and 44, Chin discloses all of the limitations of the base claim, but fails to teach that the switch port that is connected to an administrative port is connected to a device that provides a Fibre Channel and an InfiniBand upper layer protocol. Heil discloses attaching Fibre Channel or an InfiniBand from a switch to a port of a fabric (column 2, lines 23-29). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chin to have Fibre Channel or an InfiniBand installed to a port of a fabric for the benefit of high data transfer speed and bandwidth advantages as suggested by Heil (abstract).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent (5999531) to Ferolito et al
- US Patent (6275491) to Prasad et al

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
9/29/2005



HANH NGUYEN
PRIMARY EXAMINER